

# **SESSION 3**

## **Improving the Contribution of Operating Experience, Performance Monitoring and Analysis, and Lessons Learned to Integrated Safety Management (Feedback for Improvement)**

### ***Session Members***

Denny Ruddy, BWXT Pantex, Chair  
Everet Beckner, NA-1  
Keith Christopher, EH-10  
Paul Golan, EM-1  
Mike Mallory, BWXT Pantex  
Bob Pedde, Westinghouse, Savannah River

The following topics were researched and discussed by the breakout session committee:

- \* Performance metrics (How do we know how we are doing?) (Lead – Everett Beckner)
- \* Occurrence reporting and processing system (ORPS) (How do we record what we are doing?) (Lead – Paul Golan)
- \* Best practices (Who gets it?) (Lead – Mike Mallory)
- \* Corporate problem solving (How do we play nice?) (Lead – Keith Christopher)
- \* Focusing management attention (We do what the boss inspects, not what he expects.) (Lead – Bob Pedde)
- \* Now what? (Lead – Denny Ruddy)

### ***Facilitators***

Frank Russo, EH-2  
Thomas Rollow, EH-21

### **Action Items**

- \* Establish teams to focus on  
1) improving the contribution of metrics/management (See Session 1) (Lead - B. Pedde), 2) re-engineering ORPS (Lead – F. Russo), and 3) sharing best practices to ISM (Lead - M. Mallory)
- \* Develop an overall action plan for the above teams in January 2002 (Lead – D. Ruddy)
- \* Provide a progress report at the Spring 2002 ISMS Workshop and a path forward for full implementation (Lead - D. Ruddy)

The committee discussed the above-listed topics and concluded that for feedback to lead to improvement it must be available, visible, and meaningful. Currently, there are voluminous performance indicators and metrics available across the complex but no standard utilization, format, and content, etc. Also, the indicators are mostly trailing not leading indicators. The committee members discussed how to create an environment where DOE (field and headquarters) and its contractors learn from the best and worst experiences, including use of a manageable number of standardized, predictable and reliable performance indicators and the development of visionary leadership with the conviction to build on lessons learned from the complex. The Integrated Safety Management System (ISMS) process, for example, sets forth feedback and improvement requirements that get local attention, but complex-wide communication of lessons learned is problematic.

The DOE Occurrence Reporting and Processing System (ORPS) was criticized as a non-value added, expensive requirement generating excessive amounts of data to feed an historical record rather than management needs. The session members suggested that ORPS be restructured and streamlined to support ISM issue identification. The Naval Reactor incident report process and the Institute of Nuclear Power Operations (INPO) key performance indicators were identified as potential tools from which DOE could benefit.

Corporate problem-solving approaches were also discussed with the conclusions that there is little cross-cutting solutions among competitors to benefit the Department, solutions often address only localized problems, and there is little ownership of Headquarters issues. The need for an open, seamless, and no-fault process that allows the free flow of information and knowledge across both organizational and company lines was identified, as was the need for a process to effectively identify and resolve broad safety issues across the complex before they result in significant events or recurrences. Reconfiguration of contracts to eliminate subjective performance evaluations, eliminate prescriptive clauses, align requirements with the five core functions of ISM and with site risk, and incentivize identification and resolution of generic safety issues were recommended.

## **Principle Findings and Recommendations**

The committee identified strengths, weaknesses, opportunities and threats associated with the topics listed below. The primary findings of the committee in terms of opportunities for and threats to change are summarized:

### ***1. Metrics/Management Attention - Feedback for Improvement***

The committee discussed productivity and safety metrics and recommended implementation of a simple set of standard performance indicators for use by contractors and DOE field and Headquarters that is timely and consistent, provides key performance at a glance, depicts trends, and allows “drill down” to identify issues/actions. Opportunities provided by such a system include the ability to relate metrics to site incentives and focus on site objectives for prioritizing work and the opportunity for benchmarking. Threats identified for the proposed changes included use of the set of indicators as a “hammer” against the site and the zeal for over-standardization within the facility and within DOE.

### ***2. Occurrence Reporting and Processing System***

The objectives of the ORPS should be to maximize the use and quality of the data to help drive safety improvements and to benefit from lessons learned. While the system is one of few that links sites, the extraordinary level and threshold of details captured in ORPS impede the ability to achieve its primary objectives. Some of the opportunities identified included modification to reinforce the ISM principles, streamlining for utilitarian purposes at various levels and to serve customer needs, and potential consolidation of systems. Threats identified for the proposed changes included preventing the system from being a “hammer,” i.e., levying penalties for

having a problem instead of rewards for trying to resolve a problem or improve safety.

### ***3. Corporate Problem Solving***

The committee concluded that DOE should develop a process that effectively identifies and resolves broad safety issues across the DOE complex before they result in significant events or recurrences. An open, seamless, and no fault process that allows the free flow of information and knowledge across both organizational and company lines was proposed. Some recent contracts have incorporated multi-site initiatives and contractor parent corporation involvement, but there remain tremendous opportunities to further leverage best practices, increase incentives for encouraging corporate involvement and solutions, and speed improvements. Corporate problem solving strategies will have to withstand potential threats of balancing risk and rewards, implied criticism, “hammer” mentalities, and inconsistency of DOE oversight and local customer focus.

### ***4. Sharing Best Practices***

The committee recommended making available to all DOE facilities, in a cost-effective manner, innovative business practices that address site-specific safety problems. The information should be presented in a manner that allows the reader to evaluate the problem/solution and assess the applicability of the business practice at their site. By sharing best practices, improvements could be accelerated and more lofty goals established; some sites may want to start with “better practices” to start solving issues today. Potential threats could be the management of expectations in terms of implementation timelines and each facility’s reluctance to recognize best-practices not developed at their site.

## **At Issue**

Comments by the conference participants identified the following subjects at issue and/or re-affirmed committee findings. An observation was made that standardization can have negative, as well as beneficial, aspects. This was an issue repeatedly recognized by the committee, which identified “hammers” as potential threats to their recommendations. Lack of trust between DOE and contractors was identified as a major barrier to effective use of a standardization process to yield the desired result without extensive oversight and verification. Another observation made was that DOE lacks leading indicators of potential events and frequently depends upon trailing indicators, resulting in reactive responses and increased requirements. The efforts of staff groups working with performance measures and lessons learned were recognized, but DOE bureaucracy was identified as preventing effective use of this work to meet customer needs. Under Secretary Card observed that performance metrics need to be meaningful to the workers involved in order to be effective in managing safety risks rather than creating procedural traps. He also recommended that site and field offices move aggressively forward by determining what metrics currently exist and what are needed, then move towards bridging the gap rather than starting from ground zero. Differing opinions were stated regarding the role, degree, and institutionalization of partnering in the complex and in the process.